

DOCUMENT RESUME

ED 454 289

TM 033 033

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TITLE The North Carolina Competency Test Results. Measuring Up. E&R Report.
INSTITUTION Wake County Public School System, Raleigh, NC. Dept. of Evaluation and Research.
REPORT NO WCPSS-E&R-01.16
PUB DATE 2001-02-00
NOTE 9p.
PUB TYPE Numerical/Quantitative Data (110) -- Reports - Descriptive (141)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Graduation Requirements; *High School Students; High Schools; *Mathematics; *Reading
IDENTIFIERS North Carolina; *North Carolina Competency Tests; North Carolina End of Grade Testing Program; *Wake County Public School System NC

ABSTRACT

This report provides information on the performance of Wake County Public School System (WCPSS) students on the North Carolina competency tests. One requirement for a North Carolina high school diploma is to meet the competency standard in reading and mathematics. To demonstrate this competence, a student must achieve performance equivalent to Achievement Level III or above on the eighth-grade North Carolina End-of-Grade Tests in Reading and Mathematics. A scale score of 156 or above meets the requirement for reading, and a score of 165 or higher meets the mathematics requirement. Approximately 85% of WCPSS met the standard at the first test administration in eighth grade, and approximately 82% met the standards for mathematics, with approximately 79% passing both tests. Students in grades 9 through 12 who did not meet the standards earlier must take the competency tests in high school. The report contains competency information for these students through grade 12 in the 1999-2000 school year. At the end of the 10th grade, passing rates for reading and mathematics are approximately the same, 92%. The passing rate for all high school students at the end of the 1999-2000 school year was approximately 90%. A higher percentage of female students passes the tests, and there are disparities in passing rates for racial and ethnic groups. Approximately 3.5% of high school seniors had not met the requirement at the end of the school year and thus were not eligible for a high school diploma. (Contains 11 figures.) (SLD)

MEASURING UP

February, 2001

E&R Report No. 01.16

The North Carolina Competency Tests Results

TM033033

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Wake County Public Schools

Evaluation and Research Department



MEASURING UP

WAKE COUNTY PUBLIC SCHOOLS

EVALUATION AND RESEARCH DEPARTMENT

The North Carolina Competency Tests Results

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Background

One requirement to receive a North Carolina high school diploma is to meet the competency standard in reading and mathematics. In order to demonstrate the requirement has been met, a student must achieve performance equivalent to Achievement Level III or above on the eighth-grade North Carolina End-of-Grade Tests (EOG) in Reading and Mathematics. A scale score of 156 or above indicates that the competency standard has been met in reading. A scale score of 165 or above indicates that the competency standard has been met in mathematics. Students who fail to pass the initial screen when EOG tests are given at the end of eighth grade must be given at least one opportunity annually to take equivalent forms of the competency tests beginning at grade nine¹. Students who have not met the competency standard should be offered remediation until the standard has been met.

End-of-Grade Reading and Mathematics Tests

The first opportunity to meet the competency requirement is by achieving Level III or Level IV (at or above grade-level proficiency) on the eighth-grade end-of-grade reading and mathematics tests. As shown in Figure 1, approximately 85 percent of WCPSS eighth-grade students achieved a Level III or IV on the reading end-of-grade test, 82 percent on the mathematics test, and approximately 79 percent met both the reading and mathematics end-of-grade standard.

Figure 1
Spring 2000 Competency Passing Rates for WCPSS 8th Grade Students (Percent)

Number of Students	Passed Reading	Passed Math	Passed Both	Not Tested
7040	84.8	82.1	78.8	4.1

¹ NCDPI/Division of Accountability Services/Testing Section. *Understanding the NC Competency Tests of Reading and Mathematics. Vol. 6, No. 12, May 2000.*

Any student in grades nine through twelve who has not achieved Level III or above or passed other acceptable screens² must take the competency tests during high school. This report provides competency information on students who were in grades nine through twelve during the 1999-2000 school year.

The NC Competency Test of Reading is a test of reading comprehension. This multiple-choice test contains ten reading passages with three to eight questions per passage. There are four literary passages (fiction, non-fiction, drama, and poetry), four content-based passages (art, science, health, mathematics, and social studies), and two consumer/human interest passages (recipes, projects, and selections from popular magazines).

The NC Competency Test of Mathematics is a multiple-choice test assessing the seven strands of the mathematics curriculum³. The content for mathematics includes numeration, geometry, patterns and pre-algebra, measurement, problem-solving, data analysis and statistics, and computation. The mathematics test is divided into two parts—computation and applications. The computation section requires students to solve symbolic problems, estimate solutions, and solve real-world problems without a calculator. The applications section assesses the broad areas of mathematics with an emphasis on problem-solving. NCDPI approved calculators, rulers, and protractors may be used for the mathematics applications section. A list of formulas is provided with the test⁴.

Results by Grade Level

Students entering high school have yearly opportunities to pass the competency test. Passing rates as of the end of tenth grade for reading and math are about the same, approximately 92 percent. As grade level increases, the percentage of students meeting the standard increases. The passing rates for all high school students, at the end of the 1999-2000 school year, was approximately 90 percent.

Figure 2 summarizes the competency passing rates for grades nine through twelve. A “blank” indicates that the student does not have a competency test score or an acceptable passing score on a screening test. In some cases, a “blank” indicates that a student has been exempted from testing. An exemption from testing does not exempt the student from the high school graduation requirement.

² For example, a score from the SAT may be used. The NCDPI Testing Section of the Division of Accountability Services determines the tests and the scores that may be used instead of an eighth-grade EOG score.

³ A new competency test will be developed to reflect the changes in the math curriculum from seven to four strands. Three versions of the competency test will be available. The year the student enters the ninth-grade determines which competency standard the student must meet.

⁴ NCDPI/Division of Accountability Services/Testing Section. *Understanding the NC Competency Tests of Reading and Mathematics*. Vol. 6, No. 12, May 2000.

Figure 2
Competency Passing Rates by Grade Level in May 2000
Grades 9-12

Grade	Number of Students	Reading			Math			Passed Both	
		Pass	Fail	Blank	Pass	Fail	Blank	Pass	Blank
9	7306	85.0	10.8	4.2	85.8	9.9	4.2	81.6	18.4
10	6025	91.8	5.3	3.0	91.9	5.0	3.1	89.5	10.5
11	5297	96.0	2.0	2.0	95.9	2.0	2.1	94.9	5.1
12	4963	97.3	0.6	2.2	96.9	0.8	2.3	96.5	3.5
Wake	23591	91.8	5.3	3.0	92.0	5.0	3.1	89.7	10.3

Results by Gender

Figures 3 and 4 summarize the competency data by gender. During eighth-grade and in subsequent years, more females met the standard than males. Approximately 82 percent of female students and 75 percent of male students passed both EOG tests at the end of eighth-grade.

Figure 3
Eighth-Grade EOG Competency Screen Passing Rates by Gender (Percent)

Gender	Number of Students	Reading	Math	Passed Both
Females	3457	88.4	84.8	82.2
Males	3583	81.4	79.5	75.4
Wake (Gr. 8)	7040	84.8	82.1	78.8

In grades nine through twelve, approximately 91 percent of females and 89 percent of males met the standard (passed both tests) by the end of the 1999-2000 school year. Females have a slightly higher passing rate for both tests.

Figure 4
Grades 9-12 Competency Passing Rates by Gender (Percent)

Gender	Number of Students	Reading	Math	Passed Both
Females	11746	92.6	93.1	90.9
Males	11845	91.0	90.8	88.5
Wake	23591	91.8	92.0	89.7

Results by Race/Ethnicity

Figures 5-8 summarize passing rates by race/ethnicity. Passing rates ranged from 47.5 percent (Hispanic) to 93.0 percent (White) for EOG reading at the end of eighth-grade.

Figure 5
Eighth-Grade End-of-Grade Reading by Race/Ethnicity (Percent)

End-of-Grade Reading	American Indian	Asian	Black	Hispanic	Multi-Racial	White	Wake
Passed	83.3	85.3	68.1	47.5	84.6	93.0	84.8
Failed	16.7	6.9	25.3	25.4	13.8	5.1	11.0
Blank	0.0	7.7	6.6	27.1	1.5	1.9	4.2
Total	12	259	1778	236	65	4690	7040

Figure 6 summarizes passing rates by race/ethnicity for mathematics. Passing rates ranged from 46.6 percent (Hispanic) to 91.6 percent (White). The passing rates for mathematics were slightly less than for reading.

Figure 6
Eighth-Grade End-of-Grade Math by Race/Ethnicity (Percent)

Math	American Indian	Asian	Black	Hispanic	Multi-Racial	White	Wake
Passed	75.0	87.6	61.1	46.6	78.5	91.6	82.1
Failed	25.0	6.2	32.6	26.3	20.0	6.5	13.9
Blank	0.0	6.2	6.4	27.1	1.5	2.0	4.1
Total	12	259	1778	236	65	4690	7040

Passing rates for eighth-grade students who met the standard (passed both tests) varied by race/ethnicity. The range was 41.1 percent (Hispanic) to 89.4 percent (White).

Figure 7
Eighth-grade Students Achieving Level III/IV on Both Reading and Math by Race/Ethnicity (Percent)

Met the Standard (Scored Level III or IV)	American Indian	Asian	Black	Hispanic	Multi-Racial	White	Wake
Passed	75.0	82.6	55.3	41.1	75.4	89.4	78.8
Not Met (in at least one area)	25.0	17.4	44.7	58.9	24.6	10.6	21.3
Number	12	259	1778	236	65	4690	7040

Passing rates for each test and for those students meeting the standard varied by race/ethnicity in grades nine through twelve. As shown in Figure 8, the passing rates for reading ranged from 74.0 percent (Hispanic) to 96.3 percent (White). For mathematics, passing rates ranged from 70.5 percent (Hispanic) to 96.2 (White). The ranges for students who have met the standard (passed both tests) ranged from 67.5 percent (Hispanic) to 95.3 percent (White).

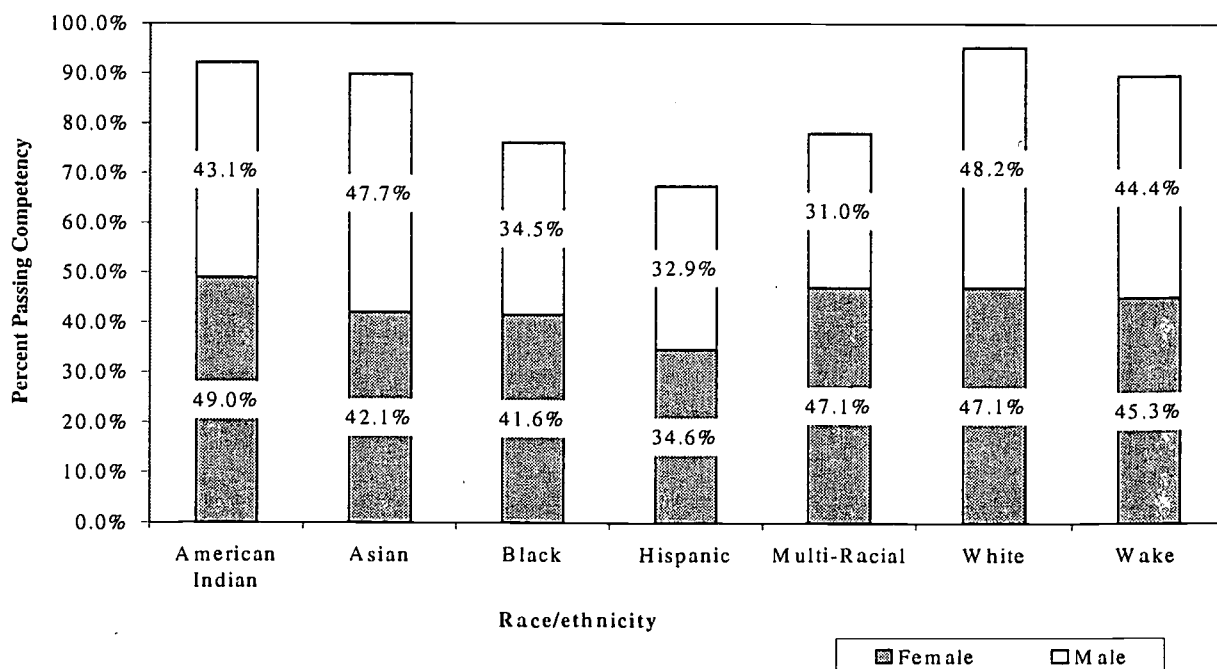
Figure 8
Competency Passing Rates by Race/Ethnicity (Percent)
Grades 9-12

	American Indian	Asian	Black	Hispanic	Multi-Racial	White	Wake
Reading	92.2	93.7	80.4	74.0	83.9	96.3	91.8
Math	92.2	90.4	82.2	70.5	86.5	96.2	92.0
Met Standard	92.2	89.8	76.1	67.5	78.1	95.3	89.7

Results by Race/Ethnicity and Gender

Figure 9 summarizes the results of students passing in grades 9-12 by race/ethnicity and gender.

Figure 9
1999-2000 Wake County Competency Test Status by Race/Ethnicity and Gender (Percent)
Grades 9-12



Results by School

The next two figures summarize the competency test results by school. The end-of-grade results for grade eight are provided separately from the high school results for grades nine through twelve. Results from the three WCPSS "alternative" schools are included with the middle or high school, depending on the grade level. School passing rates varied by school.

Figure 10
NC End-of-Grade Tests in Reading and Mathematics as of June 2000
WCPSS Middle Schools

School Code	School Name	Number of Students Grade 8	Percent Passing Reading	Percent Passing Math	Percent Passing Both
312	Apex Middle	404	84.2	86.4	81.4
324	Longview School	11	27.3	9.1	9.1
356	Carnage Middle	376	79.5	75.0	70.7
360	Carroll Middle	259	85.3	81.5	79.2
370	Centennial Middle	New School 2000-01			
388	Daniels Middle	286	78.0	74.8	72.0
391	Davis Drive Middle	350	89.4	90.3	86.9
394	Dillard Middle	No 8 th graders during 1999-00 school year			
399	Durant Road Middle	458	93.7	89.5	88.0
400	East Cary Middle	422	90.3	88.2	86.7
404	East Garner Middle	235	86.0	78.7	75.7
408	East Millbrook	333	79.9	74.2	70.3
410	East Wake Middle	357	72.0	69.5	64.4
424	Fuquay-Varina Middle	338	83.4	77.8	73.4
471	Leesville Road Middle	421	89.3	87.9	83.1
472	Ligon Middle	331	84.6	79.8	76.7
484	Lufkin Road Middle	No 8 th graders during 1999-00 school year			
492	Martin Middle	389	86.6	85.1	82.0
508	Mt. Vernon Redirection	33	51.5	39.4	36.4
512	North Garner Middle	316	75.0	74.7	69.3
592	Wake Forest-Rolesville Middle	365	88.2	84.1	82.2
594	Wakefield Middle	New School 2000-01 school year			
604	West Cary Middle	388	87.4	86.9	83.5
607	West Lake Middle	448	94.0	93.1	90.8
608	West Millbrook Middle	282	79.4	77.7	75.2
636	Zebulon Middle	238	85.3	78.2	74.4
	WCPSS Grade 8	7040	84.8	82.1	78.8

Figure 11
NC Competency Tests as of June 2000
WCPSS High Schools

School Code	School Name	Number of Students Grades 9-12	Percent Passing Reading	Percent Passing Math	Percent Passing Both
316	Apex High	1984	97.2	97.0	95.8
318	Athens Drive High	1740	91.7	91.8	89.5
324	Longview School	25	40.0	48.0	32.0
348	Broughton High	1525	92.3	92.5	90.6
368	Cary High	1728	92.8	92.8	91.0
411	East Wake High	1533	86.4	86.8	82.8
412	Enloe High	2280	88.4	89.7	86.7
428	Fuquay-Varina High	1399	90.3	89.5	87.1
436	Garner High	1793	89.5	89.5	86.2
441	Green Hope High	800	93.1	93.4	91.8
473	Leesville Road High	1914	95.5	95.1	94.3
500	Millbrook High	1773	93.2	93.3	91.5
528	Mary E. Phillips	181	74.6	80.1	68.0
552	Sanderson High	1518	92.2	92.0	90.2
562	Southeast Raleigh High	1744	92.9	93.9	91.5
588	Wake Forest-Rolesville High	1241	91.2	91.4	89.7
595	Wakefield High	413	93.5	93.0	91.0
	WCPSS Grades 9-12	23591	91.8	92.0	89.7

Summary

This bulletin reflects the status of students in the Wake County School system as of June 2000. The results show:

- A higher percentage of females passed both tests compared to males.
- There is a disparity among racial/ethnic subgroups in passing rates.
- Approximately 89.7 percent of students in grades 9-12 had met this requirement at the end of the 1999-2000 school year.
- Approximately 3.5 percent of high school seniors had not met the requirement and were not eligible for a high school diploma.



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